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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/640,663	08/18/2000	TAKASHI YOSHIDA	862.C1977	6608

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NEW YORK, NY 10112

EXAMINER

RAHIMI, IRAJ A

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/640,663

Applicant(s)

YOSHIDA, TAKASHI

Examiner

(Iraj) Alan Rahimi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10 and 12-16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) 1,2,4-10 and 12-16 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 18 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____


TWYLER LAMB
PRIMARY EXAMINER

DETAILED ACTION

Response to Amendment

1. In papers filed on February 22, 2005 applicant amended claims 1, 2, 4-8, 9, 10, and 12-16. Applicant canceled claims 3 and 11. On March 24, 2005 applicant also filed for a Request for Continued Examination (RCE).

Response to Arguments

2. Applicant's arguments with respect to claims 21, 28 and 35 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 15 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized.”

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Claim 15, while defining a computer program does not define a “computer-readable medium” and is thus non-statutory for that reasons. A computer program product can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on “computer-readable medium” in order to make the claim statutory.

“In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory.” - MPEP 2106.IV.B.1(a)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. *Claim 1, 4-6, 9 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi (US patent 6,114,837).*

Regarding claim 1, Nakanishi discloses a multifunction apparatus, adapted such that any device of a plurality of types of devices can be selectively attached thereto, for executing control on an attached device, wherein the control differs depending upon the type of device attached, said apparatus comprising:

transmitting means for transmitting a timing signal, to the attached device for acquiring identifying information stored in the attached device (column 3, lines 50-59 and column 4, lines 7-43);

receiving means for receiving the identifying information represented as digital information comprising a plurality of bits of information, including specific data indicating the type of the attached device and characteristic data of the attached device that has been transmitted serially from the attached device in accordance with the timing signal (column 3, lines 50-59 and column 4, lines 7-43);

determination means for determining, with regard to a device of a specific type, whether values of respective bits of information contained in the specific data correspond to respective ones of a predetermined bit pattern, the specific data comprising two or more bits of information transmitted in succession including different values, and the number of bits of information being less than that of the plurality of bits of information (column 3, lines 50-59 and column 4, lines 7-43); and

control means for exercising control on the attached device, upon construing that the attached device is of the specific type in a case where said determination means determines that the values of the respective bits of information contained in the specification data correspond to respective ones of the predetermined bit pattern (column 3, lines 50-59 and column 4, lines 7-43).

Nakanishi discloses in column 5, lines 12-20 that his invention is not limited to the disclosed method of identification detection and refers to other technologies such as a code of identification recorded on a medium like ROM.

Examiner interprets the identification information containing digital information of predetermined bit pattern no more than the serial number designated to a printer or scanner. Numbers including serial numbers are represented using zeros and ones for each bit in digital circuits. Since the serial numbers are unique to the devices, the bit pattern representing the serial number would also be unique. This basic principal in digital circuitry would make it obvious for a person ordinary skill in the art to rely on the digital circuitry to identify multifunction apparatus to receive the identifying information represented as digital information comprising a plurality of bits of information, including specific data indicating the type of the attached device and characteristic data of the attached device that has been transmitted serially from the attached device in accordance with the timing signal and whether values of respective bits of information contained in the specific data correspond to respective ones of a predetermined bit pattern, the specific data comprising two or more bits of information transmitted in succession including different values, and the number of bits of information being less than that of the plurality of bits of information. The motivation to that would be to simplify the identification method by using the existing technology.

Regarding claim 4, Nakanishi discloses the apparatus according to claim 1, wherein the predetermined value is such that the values of the bits of information thereof differ alternately. With each device having separate identification information, the bits representing the identification data would naturally change also.

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Regarding claim 5, Nakanishi discloses the apparatus according to claim 1, wherein the plurality of types of devices include a device of the type having an information input function and a device of the type having an information output function (column 5, lines 11-20). ROM, which can be used in a device to include device ID, has input and output function for accepting signals to detect device ID. Device ID is then output to multifunction apparatus.

Regarding claim 6, Nakanishi discloses the apparatus according to claim 1, wherein the plurality of types of devices include a scanner unit 402, for reading a document image and a printhead cartridge 401 for outputting an image to a printing medium.

Regarding claim 9, and 12-14, arguments analogous to those presented for claim 1 and 4-6, are respectively applicable.

Regarding claims 15 and 16, arguments analogous to those presented for claim 1, are applicable.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. *Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi (US patent 6,114,837) in view of Suzuki (US patent 6,309,045).*

Regarding claim 2, Nakanishi does not disclose the apparatus according to claim 1, wherein said control means includes means for giving notification of the fact that the attached device has not been electrically connected correctly if said determination means determines that the specific data is not indicative of the predetermined value. Suzuki et al. discloses in column 6, lines 66-67 to column 7, lines 1-9 that print head has made an electrical connection.

Nakanishi and Suzuki are combinable art because they are from the same field of endeavor that is printing art. It would have been obvious to a person skilled in the art, at the time of invention to use electrical connectivity as a more versatile method of ensuring proper insertion of the print head as opposed to mechanical methods.

Regarding claim 10, arguments analogous to those presented for claim 2, are presented.

8. *Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi in view of Fukazawa (US patent 5,936,740).*

Regarding claim 7, Nakanishi discloses the apparatus according to claim 6, wherein the printhead cartridge 401 includes an ink-jet printhead for printing by discharging ink, but does not disclose an ink tank containing ink supplied to said printhead. Fukazawa discloses in column 10, lines 31-35 an ink tank. Nakanishi and Fukazawa are analogous art because they are from the

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same field of endeavor that is printing art. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to use the ink tank of Fukazawa for quick change over of the ink supply.

Regarding claim 8, Fukazawa discloses an apparatus according to claim 7, wherein the printhead discharges ink by utilizing thermal energy and has a thermal energy converter for generating thermal energy applied to the ink (column 10, lines 36-63).

Other Prior Art Cited

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Shimazawa et al. (US patent application 2003/0193694) discloses device identification having a certain pattern.


Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraq) Alan Rahimi whose telephone number is 571-272-7411. The examiner can normally be reached on Mon.-Fri. 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alan Rahimi
June 10, 2005


TWYLER LAMB
PRIMARY EXAMINER